

INTRODUCTION – STREETS

(Last revised X/XX/XX)

The following division has been established to assist developers and engineers with the
SELECTED LINKS TO SECTIONS WITHIN THIS DOCUMENT

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CBR	Structural Coef for Pavement Design
CBR Testing	Utility Cuts
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design of streets (private and public) within the jurisdiction of the City of Newton. The methods, procedures, design factors, formulas, graphs, and tables presented in this division are intended to establish minimal guidelines for residential and commercial pavement design. The City of Newton believes that the following design criteria are sufficient to insure the welfare and safety of the general public and to protect the economic investment of the citizens of our City.

Alternative design methods may be considered by the Engineer/Designer on a case-by-case basis; however, there should not be extensive variations from the criteria and procedures within this division without the expressed approval of the Public Services Director.

1.1 CITY OF NEWTON PUBLIC SERVICES DIRECTOR

The Public Services Director shall be responsible for interpretation and implementation of the pavement design criteria for the City of Newton. Approval from other applicable agencies may be required.

1.2 CITY OF NEWTON PAVEMENT POLICY

It is the policy of the City of Newton that all developed land within the City Limits have adequate streets and parking lots. The City may accept roadway systems for maintenance if the system provides pavement sections that have been accepted for maintenance by the City have been designed and constructed in accordance with the provisions of the City and this division.

1.3 ACKNOWLEDGEMENTS

This division has been prepared by Appian Consulting Engineers, P.A. of Rocky Mount, North Carolina, in cooperation with the City of Newton, XX. However, the content of this division is largely derived from the *AASHTO Guide for Design of Pavement Structures* [AASHTO, 1986] and the *Asphalt Pavement Design System* [Taylor, 1993]. The AASHTO method looks at total volume of traffic over the life span of the pavement, not just daily which helps in cases where traffic is very seasonal or does not occur on weekends etc. The AASHTO method also allows for acceptance of pavement deterioration as an economic decision. When correctly used, especially in conjunction with a good model of traffic numbers and wheel loads, the method provides reasonable results. These manuals were particularly important because of their format, quality, completeness, and because they represent generally accepted criteria.

SECTION 2 STREET/SUBDIVISION DESIGN

The purpose of this division is to define the policy of the City of Newton with respect to the design, construction, and maintenance of public streets within the City.

All streets within the City of Newton shall meet all the requirements of the City of Newton Manual of Specifications, Standards and Design, latest revision.

The following shall be considered the *minimum* standards of design for streets within the City of Newton.

2.1 SUBDIVISION STREETS

Table 2.01 Required Improvements

Public Improvement	Required
Graded Streets	X
Underground Drainage	X
BMP's	X
Curb and Gutter	X
Public Water and Hydrants	X
Public Sewer	X
Paved Streets	X
Sidewalks	Both side of Residential and Commercial except not required on cul-de-sacs having 6 or less lots on the cul-de-sac right-of-way.
Street lights	X
Street trees	Not required but recommended
Underground Power	X

In every new subdivision or development, the street system shall conform to the City of Newton Urban Area Thoroughfare Plan Map. In areas where the Urban Area Thoroughfare Plan Map do not apply, streets shall be designed and located in proper

relation to existing and proposed streets, topography, natural features, tree growth, public convenience, public safety, and the proposed use of land to be served by such streets. All proposed streets shall provide for the appropriate protection of principal streets in surrounding areas and provide reasonable access for surrounding acreage tracts.

In the case that a subdivisions borders along an existing or proposed major thoroughfare, no direct driveway access will be permitted to the thoroughfare. When subdividing residential properties adjacent to a major thoroughfare, all lots should back onto the major thoroughfare and shall be required to have frontage on another public road or approved private street. When subdividing commercially zoned property, the developer shall create a marginal access street adjacent to the major thoroughfare right-of-way or shall provide some other form of access, which does not entail direct driveway access onto the major thoroughfare.

Right-of-way and pavement widths shall comply with **Standard Detail 401.01**, *Typical Street Cross Section (Geometric Properties)*.

2.1.1 Street Classifications/Definitions

1. **Collector Streets:** Streets, which carry traffic from minor streets to the system of major streets.
2. **Cul-De-Sac:** a short street designed to have one end permanently closed; the closed end terminated by vehicular turn around.
3. **Minor Thoroughfare:** Those routes whose primary function is to move traffic to major thoroughfares; average daily trips typically exceed 5,000; often provide access to abutting property (as delineated on the most recently adopted Newton Urban Area Thoroughfare Plan Map).

Major Thoroughfare: Those routes whose primary function is to move traffic; average daily trips typically exceed 12,000; access to...